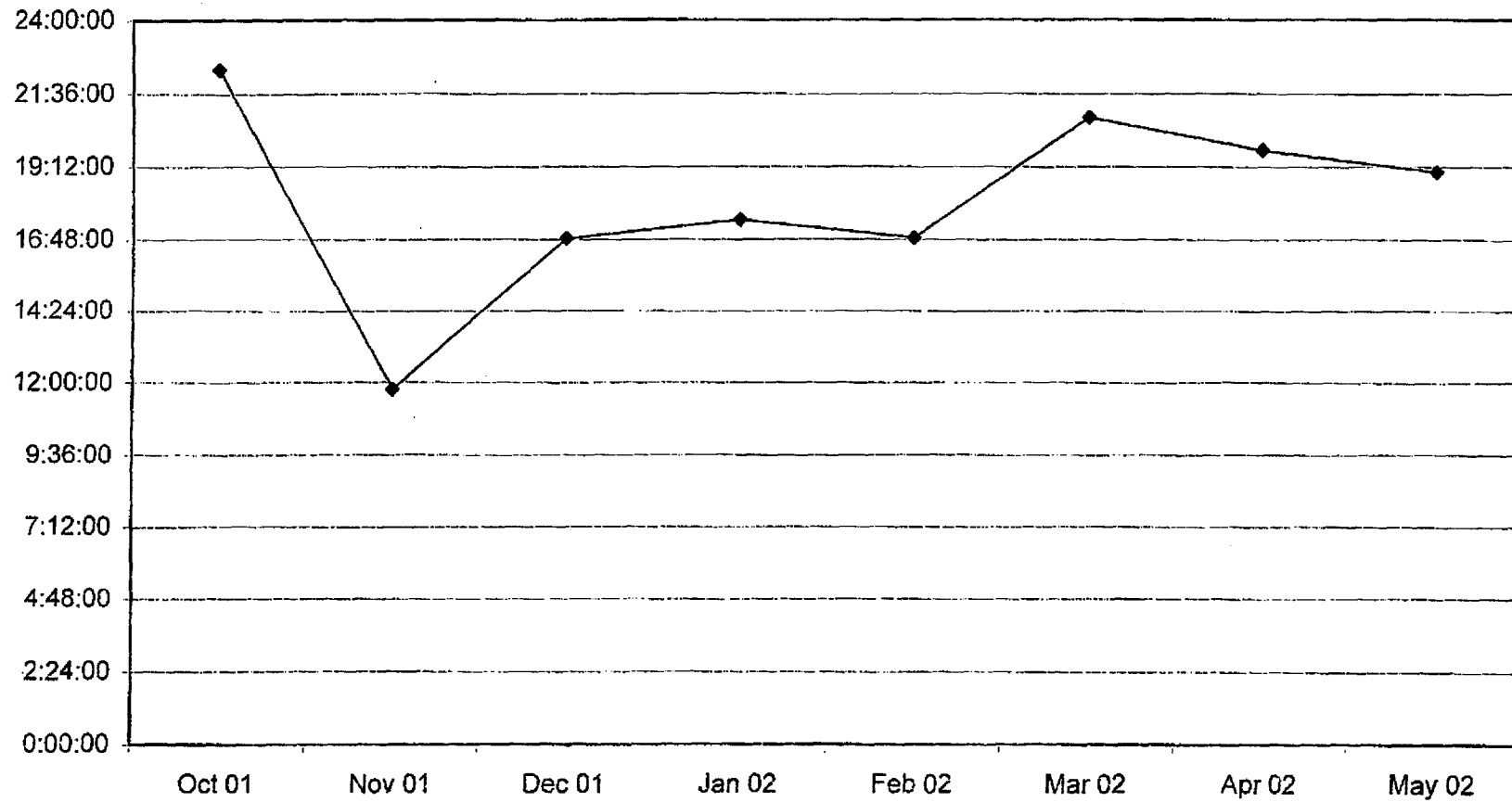


Attachment 10

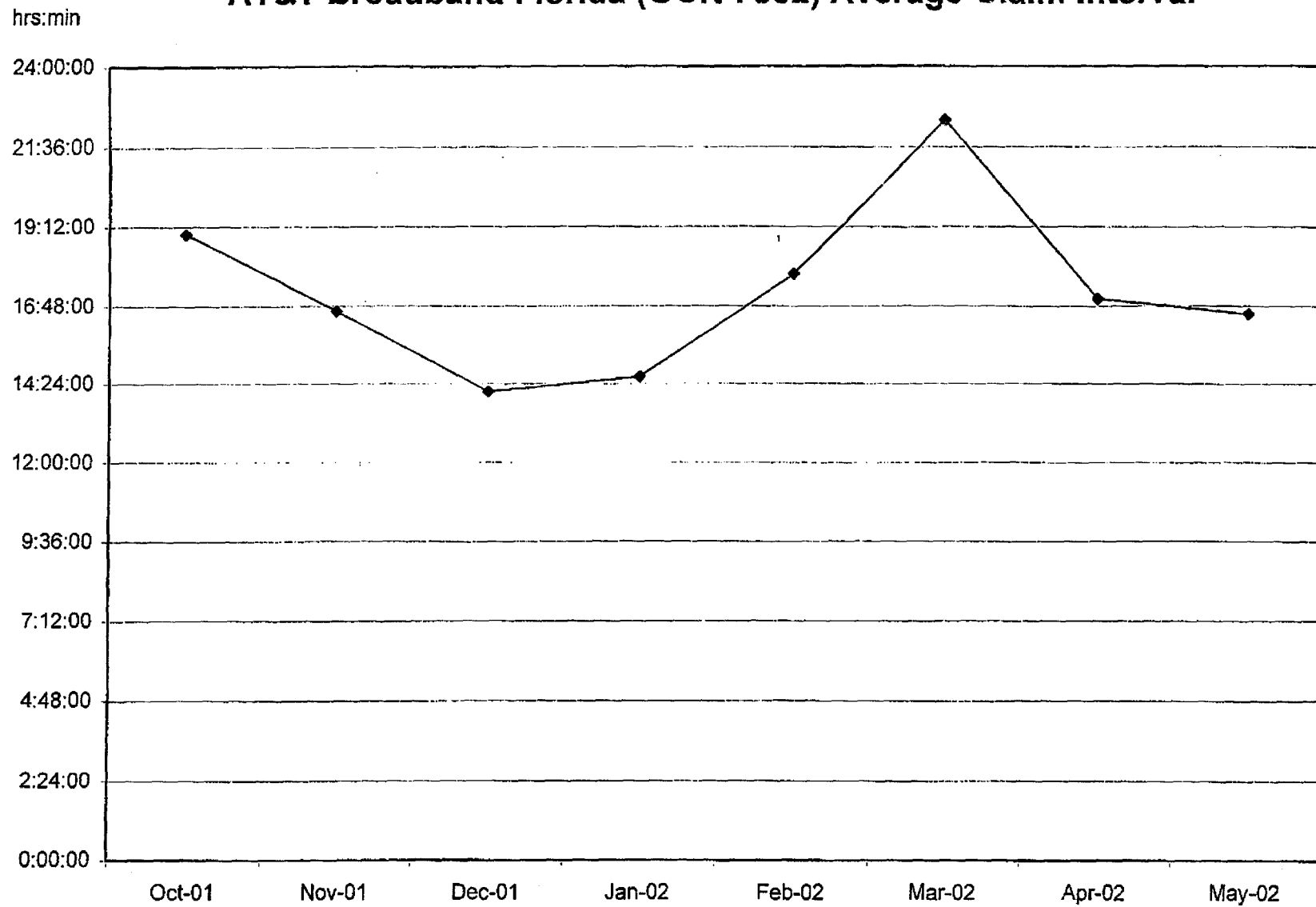
AT&T Broadband Georgia (OCN 7170) Average Claim Interval

hrs:min



Attachment 11

AT&T Broadband Florida (OCN 7562) Average Claim Interval



Attachment 12

May 2002 SOA Universes and Samples

(Sources – May Flow Through Report – BellSouth July 23, 2002 Ex Parte)

		CLEC LSRs	BellSouth's Reported <u>Service Order</u> Universe for SOA calculation	<u>Service Orders</u> Selected for SOA calculation
1	Total Mechanized LSRs	524,241		
2	Fallout to LCSC	129,008		
3	Mechanized <u>LSR</u> Universe for SOA calculation (1-2)	395,233	58,412	730
4	Manually submitted LSRs ((1 / .93) – 1)	39,459		
5	Non-Mechanized <u>LSR</u> Universe for SOA calculation (2+4)	168,467	202,115	1,017

- BellSouth's reported service order universe for mechanized orders is incomplete
- BellSouth's reported service order universe for non-mechanized orders appears reasonable, but is open to question
- The sample sizes (volume) in BellSouth's calculation remain problematic
- The percent accuracy calculations in BellSouth's July 23, 2002 ex parte for all summary lines are inaccurate and overstate the actual results in all but one case

Attachment 13

<u>Section 1: Fundamental Costing Concepts that Underlie the SECCA Analysis</u>	8
<u>Section 2: Review of the BSTLM and BSCC Models</u>	20
<u>Section 3: Development of TELRIC Costs for Unbundled Loops</u>	34
<u>Section 4: Description of the Appropriate Nonrecurring Rates for UNE Loops Used by CLECs</u> <u>to Provide xDSL Services</u>	55
<u>Section 5: Review of BellSouth's Proposed Rates for the Vertical Features of a Switch</u>	79
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Section 5: Review of BellSouth's Proposed Rates for the Vertical Features of a Switch

Q. WHAT SWITCHING-RELATED RATES ARE YOU ADDRESSING IN YOUR TESTIMONY?

A. We are specifically addressing the rates for vertical switching features in BellSouth's proposal (rate element B.4.13). BellSouth has proposed a bundled rate of \$2.64 for a collection of vertical features.

The proposed rate should be rejected for two reasons. First, BellSouth has not demonstrated (and likely cannot demonstrate) that providing these vertical features to CLECs causes BellSouth to incur an incremental cost above and beyond the costs that have already been included in the rates for switching ports and usage. In the absence of the demonstration of such an incremental cost, the rate should be \$0 (this is the case in several other BellSouth states). Second, even if BellSouth were to demonstrate that it incurs an incremental cost to provide these features, its rate proposal improperly bundles individual features together, thereby preventing CLECs from purchasing only those features that they need or want. Such bundling violates both the requirements set forth in the FTA and FCC rules for *unbundled* network elements.

Q. HOW SHOULD THE COST OF THESE VERTICAL FEATURES BE CALCULATED?

A. The costs of vertical features potentially consist of both hardware and software components. The hardware involved is the switch processor. Vertical features cause an

incremental cost to be incurred if they contribute to the exhaust of the processor's capacity. The software includes right to use fees for these features, if they have not already been included in the price for the switch's generic software (BellSouth now capitalizes the cost of the switch generic, and to include it again when calculating features costs would be a double-counting of the cost).

Q. HOW HAS BELL SOUTH CALCULATED THE COST OF THESE VERTICAL FEATURES?

A. According to Ms. Caldwell (p. 36), BellSouth has calculated an incremental investment for features based on the busy hour of the switch processor: "in order to develop flat-rated feature costs, the usage in the busy hour is the only relevant factor. Inputs need to reflect the anticipated demand that is going to be placed on the switch due to the request for feature-enhanced call processing."

While there is no debate that many of the vertical features provided to CLECs by BellSouth are provided via the switch processor, the salient question is whether providing these features *causes* BellSouth to incur additional processor costs. Processor usage to provide a given element is a cost-causative event if, but only if, it requires BellSouth to purchase additional units of capacity (e.g. if BellSouth has to buy a larger processor than it would otherwise have to buy if it did not provide vertical features, or has to upgrade or replace a switch prior to the end of its expected useful life). Two facts indicate that this is

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not the case. First, BellSouth sizes its switch processor based on busy hour minutes of use (not vertical features usage). Second, it is extremely rare for a switch to be “processor constrained,” meaning that the capacity of the processor is exhausted during the assumed life of the switch.³¹ Instead, switches are almost always “line constrained,” meaning that the capacity of the line ports (affecting the number of lines that the switch can serve) is reached first.

Q. IS BELLSOUTH LIKELY TO BE ABLE TO CALCULATE AN INCREMENTAL COST ASSOCIATED WITH THE USE OF SOFTWARE TO PROVIDE FEATURES?

A. No. The vertical features at issue are the ones that switch manufacturers call “pre-constructed” features. A pre-constructed feature is one that is included in the generic software of the switch. There is no justification, then, for the inclusion of any additional software costs. BellSouth has now begun capitalizing the cost of the generic software as a part of the investment in the switch, so the cost of this software is now reflected in the investments used to develop costs for the port and usage elements. Additional charge for features would permit BellSouth to double-recover these costs.

Q. HAVE OTHER STATE REGULATORS ADOPTED RATES CONSISTENT WITH YOUR POSITION?

³¹ Information provided by BellSouth to the Georgia Public Service Commission in Docket No. 7061-U indicates the processors of BellSouth’s switches are typically running at between 44% and 54% of capacity at the time the switch is replaced.

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A. Yes. The Florida, Georgia, Kentucky, and Tennessee Commissions have adopted zero rates for switch features.

Q. WHAT IS YOUR RECOMMENDATION TO THE COMMISSION REGARDING BELLSOUTH'S PROPOSED RATE FOR SWITCHING FEATURES?

A. BellSouth has not demonstrated that it incurs any incremental costs to provide switch features that are not already being recovered through the rates for other switching elements. In addition, BellSouth has now attempted to support the bundling of features into a package, effectively making features a "take all or leave it" proposition for CLECs.

It is our recommendation that the Commission conclude, as other states in the region have concluded, that no additional charge for features is needed or appropriate. If the Commission does decide to permit BellSouth to assess charges for switch features, it should continue to require BellSouth to unbundle those features and allow them to be purchased separately.

Q. IS YOUR RECOMMENDATION TO REQUIRE BELLSOUTH TO OFFER INDIVIDUAL SWITCH FEATURES ON AN UNBUNDLED BASIS CONSISTENT WITH PREVIOUS DECISIONS OF THIS COMMISSION?

A. Yes. In its order in Docket No. 26029, the Commission concluded that a bundled rate for switch features (1) represented a potential barrier to competition, (2) created the possibility that BellSouth would be paid by CLECs for features even when it did not incur

April 20, 2001

the cost to provide them, and (3) created the possibility that a CLEC would be in a position of paying for services that it did not want and could not market. For these reasons, the Commission determined that each switch feature should be treated as a separate UNE with a separate rate. BellSouth's rate proposal is inconsistent with this finding, and BellSouth has offered no rationale for why the Commission's past sound reasoning should be doubted now.

The salient question before the Commission, therefore, is "has BellSouth presented a compelling demonstration of the TELRIC cost of switch features in this proceeding?" The answer is no for two reasons. First, BellSouth has presented a bundled rate for switch features, but has not even attempted to produce a proposed cost and rate for individual features. Second, as described previously in this section, BellSouth has not demonstrated that it incurs an incremental cost to provide switch features (in fact, available evidence strongly suggests that they do not).

Section 6: Rates And Provisioning Intervals That Should Be Adopted For Cageless Collocation

Q. WHAT ELEMENTS OF COLLOCATION ARE YOU ADDRESSING IN YOUR TESTIMONY?

Attachment 14

BEFORE THE
ALABAMA PUBLIC SERVICE COMMISSION

GENERIC PROCEEDING TO)	
ESTABLISH INTERIM AND)	
PERMANENT PRICES FOR XDSL)	DOCKET NO. 27821
LOOPS AND/OR RELATED)	
ELEMENTS AND SERVICES)	

POST-HEARING BRIEF OF THE SOUTHEASTERN
COMPETITIVE CARRIERS ASSOCIATION

The Southeastern Competitive Carriers Association ("SECCA"), by its counsel, hereby submits its post-hearing brief in this matter. This proceeding was initiated to establish the rates competitive local exchange carriers ("CLECs") will pay BellSouth Telecommunications, Inc. ("BellSouth") for unbundled network elements ("UNEs") in the State of Alabama.

INTRODUCTION

This is not the first time that the Commission has endeavored to establish prices for BellSouth's UNEs. Unfortunately, however, at this time UNE-based competition in Alabama is practically non-existent. As the Commission is aware, now is a critical time (rather a "sink or swim" time) in the competitive local exchange industry. UNE-based

to what the parties have proposed (nominal cost of capital). (Wood/Wilsky Rebuttal at 50.) Choosing the second option would require the Commission to solicit additional evidence regarding the “real” cost of capital.

The Florida Commission recently issued its order on this issue and ruled that:

As for inflation, we are persuaded, as explained above, that BellSouth’s application of its inflation factors results in a mismatch between the inflation-adjusted material costs and the demand levels utilized in BellSouth’s cost study.

Therefore, upon consideration, BellSouth’s SE&P loading factors shall be used in setting UNE rates in this proceeding, but the inflation factors shall be eliminated. (*Before the Florida Public Service Commission, In re: Investigation into pricing of unbundled network elements, Docket No. 990649-TP, Order No. PSC-01-1181-FOF-TP, Issued May 25, 2001, at p. 304. “Florida UNE Order”*)

Additional argument regarding the use of factors is set forth under Issue 1(s) “Loadings” below.

(o) SWITCHING COSTS AND ASSOCIATED VARIABLES

The Commission should reject BellSouth’s proposal to charge a bundled rate of \$3.08 for access to all vertical features in the switch. The Commission should conclude (as have several other states in the region) that no additional charge (above the port charge) for features is appropriate. Alternately, if the Commission decides to permit BellSouth to assess charges for switch features, it should require BellSouth to unbundle those features and allow each to be purchased separately. Choosing this second alternative would require that the Commission either solicit additional evidence regarding the cost of the features individually or agree with SECCA that vertical features, whether ordered as a package or individually, have no TELRIC cost above the cost of the switch port and usage.

BellSouth's proposal should be rejected because: 1. BellSouth has not demonstrated that providing these vertical features to CLECs causes BellSouth to incur an incremental cost above costs already included in rates for switching ports and usage; and 2. even if BellSouth could demonstrate such an incremental cost, its rate proposal improperly bundles individual features together, thereby preventing CLECs from purchasing only those features that they need or want. Such bundling violates both the requirements set forth in the FTA and FCC rules for *unbundled* network elements. (Wood/Wilsky Rebuttal at 79 - 80.)

If the Commission approves BellSouth's proposal for the rate for vertical features, CLECs offering their customers only one feature (such as call waiting) will have to pay BellSouth vastly more for that feature than anywhere else in the region. (Wood/Wilsky Rebuttal at 81.) BellSouth proposes to charge this amount whether a CLEC wishes to purchase one vertical feature or all of them. (T 2275.) This all or nothing offer of vertical features is a choice BellSouth made in how to make these items available. (*Id.*) BellSouth concedes that it could have identified a cost for each feature and proposed unbundled rates for them individually. (*Id.* at 2277.)

The last time the Commission considered this issue, in its Order in Docket No. 26029, it rejected the very proposal that BellSouth is again making. In that Order, the Commission concluded that a bundled rate for switch features: (1) represented a potential barrier to competition, (2) created the possibility that BellSouth would be paid by CLECs for features even when it did not incur the cost to provide them, and (3) created the possibility that a CLEC would be in a position of paying for services that it did not want and could not market. For these compelling reasons, the Commission determined that

each switch feature should be treated as a separate UNE with a separate rate. The very same rationale applies to BellSouth's proposal in the instant proceeding. BellSouth's theory that the FCC order requires a bundled offering ("we came to that approach because that's how we interpreted the FCC's approach on features, is that what they wanted was what they call a port that had all the features") does not hold water. (T. 2275.) Indeed, the FCC order BellSouth claims to be interpreting is the very same order that was in effect when it last advocated bundling features. BellSouth has offered no rationale (nor could it) for why the Commission should change its policy on this issue.

BellSouth has not demonstrated that vertical features add costs above those costs already included in rates for switching ports and usage. The Commission should, therefore, set the rate for such features at zero and require that access to all such features be made available to CLECs as part of the unbundled switch port, though CLECs should be permitted to specify which features it wishes for each customer it serves.

(s) LOADINGS

The Commission should follow the lead of the Florida PSC by rejecting BellSouth's use of linear loading factors and requiring instead actual ILEC material investment inputs.⁴ (*Florida UNE Order* at 284 – 285.)

⁴ In principle, it appears that some of the loading factors BellSouth has recommended are tenable. However, conceptually, especially recognizing the capability of the model and the fact that loops and loop type items are being deaveraged, it is disconcerting that BellSouth did not avail itself of the model's flexibility. While certainly easier to use, we are persuaded by the other parties that linear loading factors will distort costs in a proceeding where rates are being deaveraged. Additionally, we are concerned that BellSouth could not provide any evidence demonstrating that installation costs are directly proportional to material prices or that the relationships for land and building factors or pole and conduit loadings would be representative of the future forward-looking study period as its factors imply.

Attachment 15

Direct Testimony of
Don J. Wood

BEFORE
THE PUBLIC SERVICE COMMISSION
OF SOUTH CAROLINA
DOCKET No. 2001-65-C

IN THE MATTER OF:)
)
Generic Proceeding to Establish Prices)
For BellSouth's Interconnection Services,)
Unbundled Network Elements and Other)
Related Elements and Services)
_____)

DIRECT TESTIMONY

OF DON J. WOOD

ON BEHALF OF

New South Communications, NuVox Communications, Broadslate Networks,
ITC^DeltaCom Communications, KMC Telecom

Note: With the exception of Exhibit DJW- 4, this testimony does not contain proprietary information. Accordingly, this exhibit will not be served on parties who have not signed BellSouth's proprietary agreement.

JUNE 4, 2001

**Direct Testimony of
Don J. Wood**

1 Section 5: Review of BellSouth's Proposed Rates for the Vertical Features of a Switch

2 Q. WHAT SWITCHING-RELATED RATES ARE YOU ADDRESSING IN YOUR
3 TESTIMONY?

4 A. I am specifically addressing the rates for vertical switching features in BellSouth's
5 proposal (rate element B.4.13). BellSouth has proposed a bundled rate of \$2.19 for a
6 collection of vertical features.

7 The proposed rate should be rejected for two reasons. First, BellSouth has not
8 demonstrated (and likely cannot demonstrate) that providing these vertical features to
9 CLECs causes BellSouth to incur an incremental cost above and beyond the costs that
10 have already been included in the rates for switching ports and usage. In the absence of
11 the demonstration of such an incremental cost, the rate should be \$0 (this is the case in
12 several other BellSouth states). Second, even if BellSouth were to demonstrate that it
13 incurs an incremental cost to provide these features, its rate proposal improperly bundles
14 individual features together, thereby preventing CLECs from purchasing only those
15 features that they need or want. Such bundling violates both the requirements set forth in
16 the FTA and FCC rules for *unbundled* network elements.

17 Q. HOW SHOULD THE COST OF THESE VERTICAL FEATURES BE CALCULATED?

18 A. The costs of vertical features potentially consist of both hardware and software
19 components. The hardware involved is the switch processor. Vertical features cause an
20 incremental cost to be incurred if they contribute to the exhaust of the processor's

**Direct Testimony of
Don J. Wood**

1 capacity. The software includes right to use fees for these features, if they have not
2 already been included in the price for the switch's generic software (BellSouth now
3 capitalizes the cost of the switch generic, and to include it again when calculating features
4 costs would be a double-counting of the cost).

5 Q. HOW HAS BELL SOUTH CALCULATED THE COST OF THESE VERTICAL
6 FEATURES?

7 A. According to Ms. Caldwell (p. 37), BellSouth has calculated an incremental investment
8 for features based on the busy hour of the switch processor: "in order to develop flat-rated
9 feature costs, the usage in the busy hour is the only relevant factor. Inputs need to reflect
10 the anticipated demand that is going to be placed on the switch due to the request for
11 feature-enhanced call processing."

12 While there is no debate that many of the vertical features provided to CLECs by
13 BellSouth are provided via the switch processor, the salient question is whether providing
14 these features *causes* BellSouth to incur additional processor costs. Processor usage to
15 provide a given element is a cost-causative event if, but only if, it requires BellSouth to
16 purchase additional units of capacity (e.g. if BellSouth has to buy a larger processor than
17 it would otherwise have to buy if it did not provide vertical features, or has to upgrade or
18 replace a switch prior to the end of its expected useful life). Two facts indicate that this is
19 not the case. First, BellSouth sizes its switch processor based on busy hour minutes of
20 use (not vertical features usage). Second, it is extremely rare for a switch to be

Direct Testimony of
Don J. Wood

1 "processor constrained," meaning that the capacity of the processor is exhausted during
2 the assumed life of the switch.²⁰ Instead, switches are almost always "line constrained,"
3 meaning that the capacity of the line ports (affecting the number of lines that the switch
4 can serve) is reached first.

5 Q. IS BELL SOUTH LIKELY TO BE ABLE TO CALCULATE AN INCREMENTAL
6 COST ASSOCIATED WITH THE USE OF SOFTWARE TO PROVIDE FEATURES?

7 A. No. The vertical features at issue are the ones that switch manufacturers call "pre-
8 constructed" features. A pre-constructed feature is one that is included in the generic
9 software of the switch. There is no justification, then, for the inclusion of any additional
10 software costs. BellSouth has now begun capitalizing the cost of the generic software as
11 a part of the investment in the switch, so the cost of this software is now reflected in the
12 investments used to develop costs for the port and usage elements. Additional charge for
13 features would permit BellSouth to double-recover these costs.

14 Q. HAVE OTHER STATE REGULATORS ADOPTED RATES CONSISTENT WITH
15 YOUR POSITION?

16 A. Yes. The Florida, Georgia, Kentucky, and Tennessee Commissions have adopted zero
17 rates for switch features.

²⁰ Information provided by BellSouth to the Georgia Public Service Commission in Docket No. 7061-U indicates the processors of BellSouth's switches are typically running at between 44% and 54% of capacity at the time the switch is replaced.

**Direct Testimony of
Don J. Wood**

1 Q. WHAT IS YOUR RECOMMENDATION TO THE COMMISSION REGARDING

2 BELLSOUTH'S PROPOSED RATE FOR SWITCHING FEATURES?

3 A. BellSouth has not demonstrated that it incurs any incremental costs to provide switch
4 features that are not already being recovered through the rates for other switching
5 elements. In addition, BellSouth has now attempted to support the bundling of features
6 into a package, effectively making features a "take all or leave it" proposition for CLECs.

7 It is my recommendation that the Commission conclude, as other states in the
8 region have concluded, that no additional charge for features is needed or appropriate. If
9 the Commission does decide to permit BellSouth to assess charges for switch features, it
10 should continue to require BellSouth to unbundle those features and allow them to be
11 purchased separately.

Attachment 16

**BEFORE
THE PUBLIC SERVICE COMMISSION
OF SOUTH CAROLINA**

DOCKET No. 2001-65-C

IN THE MATTER OF:)
)
Generic Proceeding to Establish Prices)
For BellSouth's Interconnection Services,)
Unbundled Network Elements and Other)
Related Elements and Services)
_____)

**POST-HEARING BRIEF OF THE COMPETITIVE COALITION AND
WORLD COM**

New South Communications, NuVox Communications, Broadslate Networks, ITC^DeltaCom Communications, and KMC Telecom (collectively the "Competitive Coalition") and WorldCom by their counsel, hereby submit their post-hearing brief in this matter. This proceeding was initiated to establish the rates competitive local exchange carriers ("CLECs") will pay BellSouth Telecommunications, Inc. ("BellSouth") for unbundled network elements ("UNEs") in the State of South Carolina.

INTRODUCTION

In this proceeding BellSouth has proposed revised rates for a number of UNEs for which the Commission established permanent rates in 1998. Rates for a number of new UNEs are also proposed. BellSouth's proposed recurring UNE rates are overstated as a result of various errors and incorrect assumptions BellSouth used in its recurring cost study. BellSouth's proposed recurring rates should be rejected in favor of the rates proposed by the Competitive Coalition and WorldCom. These rates are included as Exhibit 2 to the testimony of Don Wood.

to reflect inflation. Including an inflation factor in the price of material (as BellSouth proposes) as well as in the cost of capital causes a double counting inflation. Wood Direct pp. 42-44. Eliminating the inflation factor (the TPI) that BellSouth applied to materials thus does not eliminate recovery for inflation; it merely eliminates the *double recovery* of inflation. *Id.*

The Commission should reject the material inflation factor BellSouth proposes and either: (1) use a nominal cost of capital but not TPIs; or (2) use the TPIs in conjunction with the “real” (not nominal) cost of capital. The adjustments to the model inputs are straightforward for either option. The first option (nominal cost of capital with TPIs set to 1.0) would be easier to implement given that it takes advantage of a cost of capital akin to what the parties have proposed (nominal cost of capital). Wood Direct p. 44. Choosing the second option would require the Commission to solicit additional evidence regarding the “real” cost of capital.

Additional argument regarding the use of factors is set forth under Issue 1(s) “Loadings” below.

(o) SWITCHING COSTS AND ASSOCIATED VARIABLES

Coalition/WorldCom Position: The Commission should reject BellSouth’s proposal to charge a bundled rate of \$3.08 for access to all vertical features in the switch. The Commission should conclude (as have several other states in the region) that no additional charge (above the port charge) for features is appropriate. Alternately, if the Commission decides to permit BellSouth to assess charges for switch features, it should require BellSouth to unbundle those features and allow each to be purchased separately. Choosing this second alternative would require that the Commission either solicit

additional evidence regarding the cost of the features individually or agree with SECCA that vertical features, whether ordered as a package or individually, have no TELRIC cost above the cost of the switch port and usage.

Discussion:

BellSouth's proposal should be rejected for at least two reasons. First, BellSouth has not demonstrated that providing these vertical features to CLECs causes BellSouth to incur an incremental cost above costs already included in rates for switching ports and usage. Second, even if BellSouth could demonstrate such an incremental cost, its rate proposal improperly bundles individual features together, thereby preventing CLECs from purchasing only those features that they need or want. Such bundling violates both the requirements set forth in the FTA and FCC rules for *unbundled* network elements. Wood Direct pp. 67-71.

BellSouth has not demonstrated that vertical features add costs above those costs already included in rates for switching ports and usage. The Commission should, therefore, set the rate for such features at zero and require that access to all such features be made available to CLECs as part of the unbundled switch port, though CLECs should be permitted to specify which features it wishes for each customer it serves. The Louisiana proposed order recommends a \$0.00 charge for vertical features. *Louisiana Recommended Order*, p. 67. The Louisiana Commission concurred with the CLECs' "contention that 'something was amiss' with regard to BellSouth's proposed rates for vertical features." *Id.* "It is our conclusion that BellSouth has not established, within this proceeding, its incremental costs associated with providing vertical features above and

beyond costs that have already been included in the rates for switching ports and usage. We conclude further that BellSouth inappropriate bundles vertical features for pricing purposes.” *Id.*

- (p) **TRAFFIC DATA**
- (q) **SIGNALING SYSTEM COSTS**
- (r) **TRANSPORT SYSTEM COSTS AND ASSOCIATED VARIABLES**

The Coalition and WorldCom take no position on these issues.

- (s) **LOADINGS**

Coalition/WorldCom Position: The Commission should follow the lead of the Florida Commission by questioning BellSouth’s use of linear loading factors and requiring instead actual ILEC material investment inputs. *Florida UNE Order* pp. 284–85.

Discussion:

BellSouth uses “loadings” applied to material price inputs to calculate the total installed investment for material. These loadings are applied as multipliers on the equipment prices to derive the total installed investment, including engineering and installation. By using such linear loading factors, BellSouth essentially assumes that engineering and investment costs are directly proportional to material prices. Wood Direct pp. 39-40. For instance, if the material price of a 2400-pair cable is 20 times greater than the material price of a 25-pair cable, the BellSouth cost model assumes that the 2400-pair cable has 20 times more installed investment-related costs than the 25 pair cable, even though it may not cost (and probably does *not* cost) 25 times more to install the smaller cable. *Id.* at 41.

Similarly, an ISDN “card,” is more expensive than a “POTS” (plain old telephone service) card. It is not, however, significantly more expensive to engineer, furnish and